

REMARKS

This is intended as a full and complete response to the Office Action dated July 13, 2009, having a shortened statutory period for response extended one month set to expire on November 13, 2009. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claims 1-8 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Karaev (U.S. 5,088,638) and Current (U.S. 3,489,620). Applicants respectfully traverse the rejection.

Claim 1 includes the limitations of selecting a plurality of input coils, each input coil having the same uniform hardness, fusing adjacent free ends of adjacent input coils together to form one continuous length of rod, the fusing creating fused areas and a heat-affected zone at each fused area, treating each of the heat-affected zones to alleviate irregularities induced during fusing and winding the continuous length of rod into a finished coil. The combination of AAPA, Karaev and Current fails to disclose these limitations. As admitted by the Examiner, AAPA fails to disclose using coils having the same uniform hardness to form the continuous rod and therefore relies on Current and Karaev to teach this limitation. The Examiner appears to rely on col. 1, lines 21-27 and col. 2, lines 24-27 in Current to teach this limitation. A fair reading of these passages indicates that Current merely discloses that an entire sucker rod (see Figures 1-3 of Current) is heat treated by austenitizing and then cooled by quenching the rod in a liquid. It is to be noted that it is not inherent that the entire sucker rod of Current is pre-hardened so as to have uniform hardness as asserted by the Examiner in the Office Action. The Examiner also appears to rely on col. 3, lines 19-24 and lines 48-61 in Karaev to teach this limitation. A fair reading of these passages indicates that Karaev merely discloses a straight rod body that that is made from preliminary heat-treated metal. It is to be noted that it is not inherent that the straight rod body of Karaev is pre-hardened so as to have uniform hardness as asserted by the Examiner in the Office Action. As such, the use of sucker rod in Current and the straight rod body in Karaev is clearly different from the step of selecting a plurality of input coils, each input

coil having the same uniform hardness as recited in the claims. Therefore, Current or Karaev fails to cure the deficiencies of AAPA.

Further, the Examiner admits that AAPA fails to disclose treating each of the heat-affected zones to alleviate irregularities induced during fusing and therefore relies on Karaev to teach this limitation. However, Karaev also fails to disclose this limitation. Karaev merely discloses turning of the weld joint zone and incorporating elimination of flash and machining the surfaces of the head (see Karaev, col. 5, lines 45-50). It is noted that procedure in Karaev relates to removing flash (e.g., excess welding material) from an exterior portion of the welded section, which is clearly different from treating heat-affected zones of two fused coils having the same uniform hardness to alleviate irregularities induced during fusing as recited in claim 1. Therefore, Karaev fails to cure the deficiencies of AAPA.

As the foregoing illustrates, the combination of AAPA, Karaev and Current fails to teach or suggest all the limitations of claim 1. This failure precludes the combination of AAPA, Karaev and Current from rendering claim 1 obvious. For these reasons, Applicants submit that claim 1 is in condition for allowance and respectfully request withdrawal of the § 103(a) rejection. Additionally, the pending claims and new claims that depend from claim 1 are allowable for at least the same reasons as claim 1.

The Examiner rejected claims 9-14, 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Current, Karaev and Nast (U.S. 3,210,838). Applicants respectfully traverse the rejection.

For similar reasons as set forth above, the combination of AAPA, Karaev and Current fails to teach or suggest all the limitations of claim 14. Further, Nast merely discloses a welding wire process and thus fails to cure the deficiencies of the combination of AAPA, Karaev and Current. This failure precludes the combination of AAPA, Karaev, Current and Nast from rendering claim 14 obvious. For these reasons, Applicants submit that claim 14 is in condition for allowance and respectfully request withdrawal of the § 103(a) rejection. The pending claims and new claims that depend from claim 14 are allowable for at least the same reasons as claim 14. Additionally,

contrary to the Examiner statement on page 5 of the Office Action, it is not inherent that the rolled stock for sucker rods will be pre-hardened so as to have the same hardness.

The Examiner rejected claims 15-17 and 19 under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Current, Karaev, Nast and Payne (U.S. 4,045,591). Applicants respectfully traverse the rejection. Claims 15-17 and 19 depend from claim 14. As set forth above, the combination of AAPA, Karaev, Current and Nast fails to disclose all the limitations of claim 14. Further, Payne fails to cure the deficiencies of the combination of AAPA, Karaev, Current and Nast. As such, the combination of AAPA, Current, Karaev, Nast and Payne fails to render claims 15-17 and 19 obvious. Therefore, Applicant respectfully requests the 103(a) rejection of claims 15-17 and 19 be removed and allowance of the same.

Conclusion

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,



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